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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,187	09/25/2002	Caroline Dean	0380-P02825USO	8783
110	7590	11/03/2004	EXAMINER	
DANN, DORFMAN, HERRELL & SKILLMAN 1601 MARKET STREET SUITE 2400 PHILADELPHIA, PA 19103-2307			BAUM, STUART F	
			ART UNIT	PAPER NUMBER
			1638	

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/088,187

Applicant(s)

DEAN ET AL.

Examiner

Stuart F. Baum

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-34 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

2. In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

### ***Claim/Specification Objection***

3. Objection is made to the specification and claims for not incorporating SEQ ID NO's when referring to nucleic acid or amino acid sequences. 37 CFR 1.821(d) requires the use of the assigned sequence identifier (e.g. SEQ I.D. NO: X) in all instances where the description or claims of a patent application discuss sequences.

Group I, claim(s) 1-8, 16-24, and 30-31, drawn to an isolated nucleic acid molecule which comprises a VRN1 nucleotide sequence encoding a polypeptide, or variant thereof, recombinant vector, a method for transforming a host cell, a host cell, a method for producing a transgenic plant, a transgenic plant and method for reducing the vernalization requirement of a plant, all of which comprising said isolated nucleic acid molecule.

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**If Applicant elects Group I, Applicant is also to elect one sequence from the below list:**

- 1) the polypeptide of Figure 7**
- 2) the VRN1 nucleotide sequence as shown in Annex I**
- 3) the VRN1 paralogue RTV1 of Figure 9**

Group II, claim(s) 9-10, 12-15, and 29, drawn to an isolated probe or primer, and method for identifying or cloning a nucleic acid comprising said probe or primer.

**If Applicant elects Group II, Applicant is also to elect one sequence from the list as shown in claim 10.**

Group III, claim(s) 11, drawn to a process for producing a nucleic acid.

Group IV, claim(s) 25-28, drawn to an isolated polypeptide and method of making said polypeptide.

Group V, claim(s) 33, drawn to a method for increasing the vernalization requirement of a plant comprising antisense or co-suppression mechanisms or a ribozyme.

Group VI, claim(s) 34, drawn to an isolated promoter of the VRN1 gene or variant thereof.

4. Pursuant to 37 CFR 1.475(d), the ISA/US considers that where multiple products and processes are claimed, the main invention shall consist of the first invention of the category first mentioned in the claims and the first recited invention of each of the other categories related

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thereto. Accordingly, the main invention (Group I) comprises the first recited product, an isolated nucleic acid molecule which comprises a VRN1 nucleotide sequence encoding a polypeptide. Further pursuant to 37 CFR 1.475(d), the ISA/US considers that any feature which the subsequently recited products and methods share with the main invention does not constitute a special technical feature within the meaning of PCT Rule 13.2 and that each of such products and methods accordingly defines a separate invention.

5. In addition, the inventions listed as Groups I-VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: an isolated nucleic acid molecule which comprises a VRN1 nucleotide sequence encoding a protein which alters the vernalization response of a plant is taught in the prior art. Finnegan et al (1998, PNAS 95:5824-5829) teach a nucleic acid sequence that alters the vernalization response (abstract). Because Applicants have not explicitly defined "VRN1 nucleotide sequence", the Office interprets this to mean any sequence that alters the vernalization response of any plant.

6. In addition, the claims are not linked by a single technical feature because they are each drawn to products and processes not shared by the other. For example, the isolated nucleic acid and transgenic host cell and plant and methods comprising said nucleic acid of Group I, is not shared by the probe or primer of Group II, which is not shared by the process for producing a nucleic acid of Group III, which is not shared by the isolated polypeptide of Group IV, which is not shared by the method for increasing vernalization requirement of a plant comprising

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antisense, co-suppression or ribozyme of Group V or which is not shared by the promoter of Group VI.

7. Applicants' chemical compounds, i.e., different DNA sequences encoding different polypeptides, each have different properties and different core structures that elicit different activities; and as such, the different sequences are not linked by, or share, a single special technical feature.

8. Because these inventions are distinct for the reasons given above, have acquired a separate status in the art as shown by their different literature and sequence searches required for each of the Groups are not required for another of the Groups, restriction for examination purposes as indicated is proper.

9. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

10. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

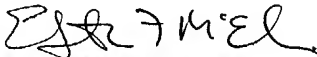
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stuart F. Baum whose telephone number is 571-272-0792. The examiner can normally be reached on M-F 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amy Nelson can be reached on 571-272-0804. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1600.

Stuart F. Baum Ph.D.  
Patent Examiner  
Art Unit 1638  
October 29, 2004

  
**ELIZABETH MCELWAIN**  
**PRIMARY EXAMINER**